

As a specific printer that has a simple structure and prints status information, the invention claimed in Claim 8 is a printer for holding two-way communication with a host computer and printing status information about itself. This printer comprises an output initiation instruction unit for instructing the output initiation of the status information, a status information acquisition unit on the printer's side for acquiring status information data on the printer, a status information output unit for outputting through the two-way communication the status information data acquired by the status information acquisition unit on the printer's side, and causing the host computer to generate printing data for the printer to print the status information, and a printing unit for receiving the printing data from the host computer through the two-way communication and performing predetermined printing based on the received data.

As stated above, the invention claimed in Claim 8 is a printer for holding two-way communication with a host computer and printing status information about itself. The output initiation instruction unit enables a user to instruct the output initiation of the status information. The status information acquisition unit on the printer's side acquires the status information data on the printer. The status information output unit outputs through the two-way communication the status

information data acquired by the status information acquisition unit on the printer's side. Consequently, the host computer generates the printing data for the printer to print the status information, and outputs the generated printing data through the two-way communication. The printing unit causes the printer to receive the printing data from the host computer through the two-way communication and perform the predetermined printing based on the received data.

In other words, the printer can output the status information data to the host computer under the directions of the user. The printing unit just performs printing as the original function of the printer. The printing unit need not distinguish the normal printing data and the status information data from each other. If the printing data, which is sent after the output initiation instruction on the status information is given by the output initiation unit, is printed as a normal printing job, the printing result can be recognized as the status information. This saves the necessity to fit the printer with a processor for generating the printing data. Consequently, a printer of low cost can be realized. If the printing data is dot image data, it is not necessary to provide a font ROM, neither is it necessary to perform printing data generation processing based on a page description language in a processor. As a result, the printer can be simpler.

There are various forms of output initiation instructions on the printer. The printer defined in Claim 10 can cope with a case as shown in Claim 3 where the output initiation instruction is part of the status information data, and where the host computer acquires the status information data containing the output initiation instruction. The printer defined in Claim 11 can cope with a case as shown in Claim 4 where the output initiation instruction is a trigger output, and where the host computer monitors the trigger. There are various constitutions for users to give the output initiation instruction on the printer. As an example, the invention claimed in Claim 12 is the printer defined in any one of Claims 8 - 11, in which the output initiation instruction unit includes a predetermined instruction button. Multiple operation of the instruction button gives the output initiation instruction.

In the invention claimed in Claim 12, the printer includes the predetermined instruction button, the multiple operation of which gives the output initiation instruction. In other words, while it is preferable that the hardware mounted in the printer be less to make the printer simple in structure, the instruction button can be easily constituted. The number of instruction buttons can be small if different functions are determined by the number of times they are pushed. Specifically, different functions can be achieved by the instruction buttons being pushed